**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division**

LIMELIGHT NETWORKS, INC.,	Case No. 3:15cv720-JAG
Plaintiff and Counterclaim Defendant,	
v.	**JURY TRIAL DEMANDED**
XO COMMUNICATIONS, LLC.,	
Defendant,	**REDACTED, PUBLIC VERSION**
AKAMAI TECHNOLOGIES, INC.,	
Defendant and Counterclaim Plaintiff,	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,	
Counterclaim Plaintiff.	

**LIMELIGHT NETWORKS, INC.'S MEMORANDUM IN SUPPORT OF LIMELIGHT'S
MOTION FOR SUMMARY JUDGMENT**

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I.   INTRODUCTION

Limelight respectfully moves for summary judgment as to the issues identified below.

II.   STATEMENT OF UNDISPUTED FACTS PURSUANT TO L.R. 56(B)

In support of its Motion for Summary Judgment, Limelight submits this statement of facts that are undisputed for the purpose of summary judgment.

A.   Non-Infringement of Akamai's 959 Patent

1.   Akamai accuses Limelight's Orchestrate Content Delivery and Orchestrate Performance using Limelight's ███████████████ in connection with ██████████████████████ of infringing the asserted claims of the 959 Patent. **Ex. 1**, Mir Opening, ¶¶ 107-110.

2.   When a Loris DNS server receives a DNS query, the Loris server ████████████

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███████████████████████████. **Ex. 1**, Mir Opening, ¶¶ 151-172; **Ex. 2**, Mir Reply, ¶ 29.

3.   The Loris DNS resolution process is ██████████████████████████████

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████████████████████████████. **Ex. 3**, Freedman Resp., ¶ 86; **Ex. 2**, Mir Reply, ¶¶ 24, 29.

4.   The term "domain name service" in the Court's construction has an understood meaning to one skilled in the art that the domain name service responds to DNS queries with DNS responses, both of which have "well-defined DNS formats." **Ex. 2**, Mir Reply, ¶ 36.

B.   Non-Infringement of Akamai's 088 Patent

5.   Akamai contends that the use, by Limelight engineers, of at least two (and up to six) separate computer systems to configure new Limelight customers for service on Limelight's CDN satisfies the 088 Patent's "computer system" requirement. **Ex. 2**, Mir Reply, ¶¶ 65-81; **Ex. 3**, Freedman Resp., ¶¶ 166-218.

6.   Akamai and its expert Dr. Mir contend that the "***receiving,*** by a service provider, a domain name associated with a markup language page" step of the "computer system" limitation is met by an internal Limelight computer system named █████████████████████

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████████████████████   **Ex. 2**, Mir Reply, ¶ 67 (citing **Ex. 3**, Freedman Resp. ¶¶ 178-191); **Ex. 1**, Mir Opening, ¶¶ 355-356.

7.   Akamai and its expert Dr. Mir contend that the "***in response, providing***, by the service provider, a CDN-specific domain" step of the "computer system" limitation is met by a "ticketing system" named ████████████████████████████████████

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███████ **Ex. 2**, Mir Reply, ¶ 68 (citing **Ex. 3**, Freedman Resp., ¶ 190).

8.   Entry of a domain name associated with a customer origin server into the ███████████

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██. **Ex. 3**,

Freedman Resp., ¶ 187; **Ex. 4** (Hofmann Vol. 2 Dep.) 606:20-607:20.

9.   The customer "domain name identifying an origin server" that can (but need not) be

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██ **Ex. 3**,

Freedman Resp., ¶¶ 180-186, 193-199; **Ex. 2**, Mir Reply, ¶¶ 67-71.

10. Akamai also contends an "Ordering Delivery Services" feature in a customer portal

called "Limelight Control" meets the "computer system" limitation, **Ex. 1**, Mir Opening, ¶¶ 364-

366, **Ex. 2**, Mir Reply, ¶¶ 82-86. ████████████████████████████

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███████████████████ **Ex. 3**, Freedman Resp., ¶¶ 180-186, 193-199; **Ex. 2**, Mir Reply,

¶¶ 67-71.

C.   Non-Infringement of Akamai's 133 Patent

11. Akamai contends that Limelight's use of a TCP algorithm known as "FastTCP" infringes

133 Patent Claim 58. **Ex. 1**, Mir Opening, ¶ 604. *See also*, **Ex. 2**, Mir Reply, ¶¶ 146, 149.

12. Limelight's edge servers send messages to an end user client using FastTCP, and end

users successfully receive messages sent using FastTCP. **Ex. 3**, Freedman Resp., ¶ 356; **Ex. 5**,

Hofmann Vol. 1 Dep. at 100:8-18; **Ex. 4**, Hofmann Vol. 2 Dep. at 469:10-471:12; **Ex. 2**, Mir Reply, ¶¶ 148-149.

13. Akamai contends that Limelight's private network is a high performance protocol, because Limelight optimizes the segment between edge servers "through operating a private, dedicated network, and through optimizations of TCP communications". **Ex. 1**, Mir Opening, ¶¶ 587, 591. *See* also, *id*. ¶¶ 607-608.

14. Akamai has not identified any accused "standard communication protocol" that Limelight's "private or dedicated network with intelligent routing" is purportedly "designed to be of higher performance than," under the Court's claim construction. **Ex. 1**, Mir Opening, ¶¶ 587, 591, 607-608.

D.   Invalidity of Akamai's 178 Patent

15. Dr. Bhattacharjee, Akamai's expert, submitted a declaration in opposition to Limelight's proposed construction of the indefiniteness of the 178 Patent that read:

> In reading the rest of the method claim, it is clear that the "wherein" clause merely suggests that in the event that the "one or more CDN storage sites" include "first and second CDN storage sites," those sites must be "located in different Internet-accessible locations and operate asynchronously and autonomously from one another." *Id*. After all, if there is only one CDN storage site, it is assumed that such a site would operate asynchronously (since there would be no other site that could be synchronized) and autonomously.

D.E. 104, ¶114.

16. Dr. Mir, Akamai's expert, submitted a responsive expert report that read:

> Second, I disagree that the phrase "one or more CDN storage sites . . . wherein the one or more CDN storage sites include first and second storages sites" is indefinite. Dr. Freedman merely opines that this term is indefinite, without any explanation or any bases for his opinion. *See* Freedman Rpt., Ex. B.1 at 57-58. I disagree. I and others of ordinary skill at the time of the '178 patent invention would understand, with reasonable certainty, that this claim term requires at least two CDN storage sites.

Ex. 6, Mir Reb., ¶ 439.

E.   Infringement of Limelight's 324 Patent

17. In response to the opinion of Limelight's expert that Akamai practices each element of Claims 6 and 11 of Limelight's 324 Patent, *see* **Ex. 7** [Almeroth Opening], ¶ 78 (summarizing that "Akamai directly infringes the asserted claims [then including] 5, 6, 8, 10, and 11 of the 324 Patent."); *id.* ¶¶ 177-210.; *id.* Appx B at 84-198 (Claim 6), 201-203 (Claim 11), Akamai's expert offers no opinion that Akamai does meet each claim limitation. *See* **Ex. 8** [Bhattacharjee Resp.], ¶¶ 165-173. Instead he opines that ███████████████████████████████████████ ██ █████████████████████████████ **Ex. 8** [Bhattacharjee Resp.], ¶¶ 152-161, 164. Also, Akamai's expert does not opine that Akamai does not meet the "derived from a first uniform resource indicator" limitation, opining instead only that ████████████████████████ █████████. *Id.* ¶ 171. ████████████████████████ ███████████. *Id.* ¶¶ 165-173.

F.   No Invalidity of Limelight's 577 Patent

18. On June 8, 2016, pursuant to the Court's Rule 16 Order, D.E. 55 at 2, Akamai served invalidity contentions asserting that the 577 Patent was invalid as anticipated under pre-AIA 35 U.S.C. §102(b) by U.S. Patent Application Publication No. 2006/0236221 ("McCausland") and by W. T. Ooi et al., Design and Implementation of Programmable Media Gateways, In Proc. NOSSDAV (June 2000), Chapel Hill, NC. ("Ooi NOSSDAV Paper"). *See* **Ex. 9** (Exhibit F to Akamai's Preliminary Invalidity Contentions) at 1 and **Ex. 10** (Exhibit G to Akamai's Preliminary Invalidity Contentions) at 1.

19. On September 20, 2016, at about 10:52 PM EDT, **Ex. 11**, Akamai served "supplemental" invalidity contentions asserting for the first time that the 577 Patent "is anticipated or rendered obvious by Akamai's Stream OS Service," alone or in combination with other references, and

that the 577 Patent is anticipated or rendered obvious by "Wei Tsang Ooi, 'Design and Implementation of Distributed Programmable Media Gateways,' Cornell University, August 2001 ('Thesis')," alone or in combination with other prior art, including Wei Tsang Ooi, Peter Pletcher and Lawrence Rowe, 'Indiva: A Middleware for Managing Distributed Media Environment,' Proc. SPIE 5305 Multimedia Computing and Networking 2004, (December 15, 2003)." **Ex. 12**, Akamai Spl. Invalidity Contentions, **Part II**, at 1-9.

20. On September 23, 2016, Akamai served the expert report of Dr. Samrat Bhattacharjee ("Bhattacharjee Opening"). **Ex. 13**. This Report did not contain opinions on the invalidity of the 577 Patent based on the McCausland or the Ooi NOSSDAV Paper prior art references, which were identified on June 8, 2016. **Ex. 13**, Bhattacharjee Opening, ¶¶ 1252-1692. The Bhattacharjee Opening Report did contain opinions regarding the art first disclosed in the evening of September 20, 2016. **Ex. 13**, Bhattacharjee Opening, ¶¶ 1252-1692.

III.   LEGAL STANDARD

Summary judgment is appropriate if "there is no genuine dispute as to any material fact" and "the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A genuine issue of material fact exists only "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). "[T]he mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine* issue of *material* fact." *Id.,* 247–48 (emphases in original).

IV.   ARGUMENT

A.   Because Limelight's CDN Lacks A "CDN Name Service," Akamai Cannot Show Infringement of Asserted Claims 1, 10, 11, and 58 of the 959 Patent

Each of the asserted claims of Akamai's 959 Patent recite a **"CDN name service"** or a

"**CDN name server**" (which the Court has construed as "a DNS server within the **CDN name service**", D.E. 179 at 13). Over Akamai's objections, the Court construed "CDN name service" to require "*two levels of domain name service*": a *top-level domain name service* to determine the user's location in the network in order to identify a *given low-level domain name service* to respond to the user's DNS query. D.E. 179 at 13. Limelight is entitled to summary judgment of no infringement of the asserted claims of the 959 Patent (Claims 1, 10, 11, and 58) because the accused Limelight system does not contain the required two levels of domain name services. Instead, as described below, it is undisputed that it includes only a single DNS server, performing a single DNS resolution (*i.e.,* providing **one** domain name service).

Faced with the Court's narrowing construction, Akamai has entirely abandoned its previous infringement theory and articulated a contorted new one. Akamai now arbitrarily divides up a ██ "Loris" DNS server, in connection with ████████████████████████, and contends that this single set of operations, ████████████████████████ still meets the Court's "**two** levels of domain name service" construction. Specifically, Akamai alleges ████████████████ ██ ██ ████████████████████████████████ **Ex. 1**, Mir Opening, ¶¶ 151-172; **Ex. 2**; Mir Reply, ¶¶ 33, 43. Akamai's bases are that: 1) the Court's construction allows for a "single-level DNS" embodiment; and 2) the firs ████████████████████ a "top-level" domain name service because they are ████████████████████████████████ ████████████████████████████ which are a "low-level" domain name service

because they occur ***after*** the preceding steps, and are therefore low-level in the hierarchy of operations. **Ex. 1**, Mir Opening, ¶ 151; **Ex. 2**, Mir Reply, ¶¶ 24, 33.

Neither position has merit. Loris DNS does not satisfy the "single-level DNS" of the Court's *Markman* order. Nor does the accused Loris service meet the construction of "CDN name service," either literally or under the doctrine of equivalents, because Loris is, and provides, only ***one*** "domain name service," not ***two***. Because "the parties do not dispute any relevant facts regarding the accused product but disagree over which of two possible meanings of Claim[s] is the proper one," the issue of infringement is "amenable to summary judgment." *Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1578 (Fed. Cir. 1996).

1.   Loris DNS Is Not A "CDN name service/server" Under the Court's Construction

The Court's construction of "CDN name service" expressly requires two distinct levels of domain name services: a top-level and a low-level domain name service, each with distinct functions. D.E. 179 at 13. Nothing about the Court's Order, agreeing that an accused system "can, as specified in the patent, combine the functionality of this process into a single DNS level," D.E. 179 at 15, removes this requirement. As the Court's Order makes clear, such a "single DNS level" must, "as found by the District of Massachusetts. . . ***'accomplish the same steps as the described embodiment.'***" *Id.; see id.* at 14 (***"[T]he process carried out by the single-level DNS must nonetheless follow that of the multi-level DNS described in the patent***."").

The process carried out by the two-level DNS described as the "invention" in the patent involves two distinct levels of domain name ***services*** that each perform a DNS resolution process—a top-level ***domain name service*** that performs a resolution process by determining the user's location, "in order to" identify a "given" low-level ***domain name service***, which in turn

receives the DNS query and performs another resolution process to respond to the user's query. *See, e.g.*, **Ex. 14**, 959 Patent at 3:15-36, 5:48-60, 9:24-40, Figs. 3, 5.

FIG. 5

The 959 Patent also discloses that "there may be a single DNS level that combines the functionality of the top and low-level servers." 959 Patent at 5:61-63. As correctly interpreted by the Court, while the single DNS level may combine the functionalities of top-level and low-level DNS servers, it is still required to perform the same process and steps as the two-level DNS, which involve **two** distinct domain name services in specific relationship with each other and performing **two** DNS resolution processes. The operations of a Limelight's Loris DNS server do not constitute such a "single-level DNS" within the meaning of the Court's Order.

As explained by Limelight's expert, "domain name service" as used in the Court's construction and the 959 Patent has a well-understood meaning. A domain name service associates domain names (like nbcnews.com) for which it is authoritative with resource records (such as IP addresses, or other domain names), and responds to "DNS queries" (requests for DNS resolution using a well-defined format) by providing a response in a well-defined format. **Ex. 3**, Freedman Resp., ¶ 72. Akamai's expert does not appear to dispute this well-known meaning; his own textbook in fact confirms it. **Ex. 2**, Mir Reply, ¶¶ 14, 36; **Ex. 15**, Nader F. Mir, Computer and Communication Networks (2nd ed. 2015) at 325 ("the Domain Name System (DNS) [] is a distributed hierarchical and global directory server system that translates host or domain names to IP addresses."); 329 ("DNS communication is made possible through query

and reply message. Both message types have the 12-byte header format shown in Figure 9.6.").

Akamai's expert in prior litigation confirms this understanding, opining that "[t]he *system that translates between the names that people use and the addresses used inside the Internet* is called the Domain Name Service ('DNS'). DNS takes a name like www.boston.com and translates it into an address, 66.151.183.41. This translation process is called 'DNS resolution.'" **Ex. 16**, Crovella Rep. (11/2/2007) at 6. Akamai's expert also confirmed that "levels" of DNS service refers to distinct DNS services: "[t]o make it possible to quickly find the domain name server associated with any given name, the DNS system is organized into 'levels.' . . . For example, for www.boston.com, the top level domain (TLD) is '.com' and the next level below that is 'boston.'" *Id.* at 7.

As such, there is no dispute that a "domain name service" "translates between the names that people use and the addresses used inside the Internet," or that "levels" of a domain name service refer to distinct domain name services—not to different parts of a single set of operations performed by one DNS server. And the Court's claim construction unambiguously requires two such "domain name services"—a "top-level domain name service" that determines a user's location, and then uses that information to perform a DNS resolution process that identifies a "given low-level domain name service." That "low level domain name service" performs a DNS resolution process that responds to a user's DNS query with an IP address of a content server.

The Federal Circuit's holding regarding the operation of the "single-level DNS" embodiment in the prior litigation confirms that the single-level DNS embodiment still comprises **two** distinct *domain name services*–a top-level domain name service, and a low-level domain name service–which interact with each other in a specific manner:

> In a single-level DNS embodiment, as suggested by the specification, the user's local name server would **still contact** a content delivery provider's top-level name server to resolve the

IP address of a server to serve an object. This name server, however, would then directly communicate with a particular local name server, based on the user's location, to resolve the server's IP address and return it to the user, *rather than require the user to conduct a second lookup*. Thus, the user would obtain the IP address of the appropriate ghost server *with only a single DNS request*, *however the selection of a particular name server would still be the result of a DNS lookup by the service provider's DNS system*. Such an embodiment would satisfy the claimed "one" level of DNS. . . .

*Akamai Tech., Inc. v. Limelight Network*s, 629 F.3d 1311, 1330 (Fed. Cir 2010) (cited in D.E. 179 at 14, FN 3). As such, the so-called "single-level DNS" embodiment still unmistakably requires two distinct levels of domain name services with two DNS resolution processes, and the second DNS resolution process must still take place at a distinct, *given* low-level domain name service that has been identified by the top-level domain name service. The only difference is that the top-level DNS in the single-level DNS embodiment directly communicates with the low-level domain name service to obtain the second DNS resolution, so that the user does not need to send the second DNS query to the low-level DNS. The low-level DNS is thus transparent to the user and the two-level DNS is perceived by an end-user device as a single-level process.

Akamai's expert relies on language in the specification stating that the "top level" and "low level" domain name service can be provided by "server resources" as well as "servers" to show that the claim construction can be met by ███████████████████████ ████████████ but that reliance is misplaced. **Ex. 2**, Mir Reply, ¶ 31 (quoting 959 Patent at 3:28-36: "[T]he framework includes a second set of servers (or server resources) that are configured to *provide top level Domain Name Service (DNS).* In addition, the framework also includes a third set of servers (or server resources) that are configured to *provide low level DNS functionality."*). As the quoted disclosure itself demonstrates, whether found on "servers," or "server resources," the specification states (and the Court's construction requires) that two distinct *domain name services* are provided – a top level and a low level, each providing "DNS functionality" and operating in a specific relationship to each other–not just a single DNS

resolution process comprising multiple steps that are arbitrarily divided into "top level" and "low level." *See, e.g.,* 959 Patent at 3:41-48.

The accused Loris DNS does not have, and does not provide, the required two levels of domain name services, and so does not meet the Court's construction of a "CDN name service." Upon receipt of a user's DNS query, the accused Loris DNS provides ███████████████ ██ Akamai's arbitrary dissection of this process into two groupings of algorithmic steps, does not render ██████████ ██ do not "translate between the names that people use and the addresses used inside the Internet," as Akamai's own expert has described a domain name service. They do not provide IP addresses of selected servers, as a domain name service would. *See, e.g.,* 959 Patent at 10:51-58. They do not redirect a DNS query to a different domain name service, as a domain name service would. *See, e.g.,* 959 Patent at 10:10-14 ("[T]he top level DNS server redirects the DNS request to a low level DNS server close to the user in the network."). They perform no DNS resolution at all.

Instead, the undisputed output of Loris' purported "top level domain name service" is ██ ██ ██ **Ex. 3**, Freedman Resp., ¶ 86; **Ex. 2**, Mir Reply, ¶¶ 33-34. ████████████████████████████████████ ██ ██ ██ ████████████████████████ **Ex. 2**, Mir Reply, ¶ 36; **Ex. 3**, Freedman Resp., ¶¶ 72-73.

Nor are these ███████████ process steps a **"top level"** domain name service under the

Court's claim construction, because they do not identify a "low level" domain name service to respond to the user's DNS query. First, they do not do so because the remaining ███████ ████████ are also not a domain name service. The remaining ███████ do not receive a DNS query, and do not resolve one. Instead, █████████████████████████████

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Second, the last ███████████████████████ "*given* low-level" domain name service within the Court's construction because they were not "*identified*" by the first ███████ ██████████████████████████████████ Instead, the *same* operational steps, running on the *same* Loris DNS server, are executed every time by Loris, and███████ █████████████████████████████████████ **Ex. 3**, Freedman Resp., ¶ 82. No different set of "given" steps (which Akamai contends are the "low level" domain name service) is ever "identified" by the Loris process. As such, Akamai cannot show that the accused Loris system meets the "CDN name service/CDN name server" requirement.

2.   Loris DNS is not equivalent to the claimed CDN name service/server

The Federal Circuit has admonished that "[t]he doctrine of equivalents cannot extend or enlarge the scope of the claims." *Dolly, Inc. v. Spalding & Evenflo Cos.*, 16 F.3d 394, 398 (Fed. Cir. 1994). Particularly, the doctrine of equivalents cannot be used to "embrace a structure that is specifically excluded from the scope of the claims," *id.* at 400, or to "erase meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement," *Conopco, Inc. v. May Dep't Stores Co.*, 46 F.3d 1556, 1559 (Fed. Cir. 1994). Akamai's use of the doctrine of equivalents to contend that **one** Loris domain name service,

performing **one** DNS resolution process, meets the Court's construction requiring **two** levels of domain name service, improperly seeks just that.

In *Athletic Alternatives, Inc. v. Prince Manufacturing, Inc.*, the Court construed the claim to require that the stringing system produce rackets with at least **three** different offset distances, and held that "the properly construed claim cannot have an equivalent in a racket with only **two** offset distances," as the two-distance string system was "specifically excluded from the scope of the claims." 73 F.3d 1573, 1582 (Fed. Cir. 1996). Similarly, here, **one** non-hierarchical level of domain name service performing **one** DNS resolution is simply not equivalent to **two** hierarchical levels of domain name services performing **two** DNS resolution processes in the claimed CDN name service/server, and is in fact excluded from the claim construction on its face.

The accused Loris DNS process of **one** domain name service is not a matter of "insubstantial difference" from the requirement of **two** domain name services in the Court's claim construction of a "CDN name service." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39-40 (1997). As Akamai's counsel has conceded, "[Limelight's system] is *a lot different* than a claim that literally requires a two level DNS or top level DNS determines where an end user is." **Ex. 17**, Markman Tr. at 204:21-23. Viewed through the well-known "function, way, result" test for insubstantiality, *Warner-Jenkinson,* 520 U.S. at 39-40, the accused Loris DNS process returns a DNS resolution in a substantially different way than the system of the 959 Patent. Unlike the recited CDN name service, Loris does not use a top-level domain name service to identify and redirect a DNS query to **another** ("low-level") domain name service at all, let alone doing so based on a user's location. Instead, it performs a single DNS resolution as one domain name service, and never identifies a **given** "low-level domain name service," even under Akamai's theory that ▮▮▮▮▮▮▮▮▮▮ comprise a "domain name service." These

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differences in the way that Loris performs the recited function are not "insubstantial" at all, and infringement under the doctrine of equivalents is precluded as a matter of law. *Augustine Med., Inc. v. Gaymar Indus.*, 181 F.3d 1291, 1304 (Fed. Cir. 1999) (finding "no reasonable jury could conclude that there are features of the accused [product] which are insubstantially different than the [recited claim] limitation.").

In fact, the difference between the operation of Limelight's Loris DNS and the claimed CDN name service of the 959 Patent goes to the core of the 959 Patent, which repeatedly describes two levels of domain name service as the "invention." Allowing a single domain name service to be equivalent to two levels of distinct domain name services would vitiate the claim limitation "CDN name service/server" as construed, and would improperly bring the excluded DNS structure into the scope of patent protection. *See Searfoss v. Pioneer Consol. Corp.*, 374 F.3d 1142, 1145-46, 1150-51 (Fed. Cir. 2004) (construing claim as requiring a direct connection and equivalence of an indirect connection would vitiate "connecting" as construed). Moreover, allowing the **two** domain name services (a top level and low level) required by the Court's claim construction (and "the invention") to collapse into **one** domain name service would improperly expand the scope of the claimed invention to cover *any* DNS service that uses an end user's location to select an appropriate content server. Such an expansive reading is what the Court's claim construction prevents, and Akamai should not be permitted to avoid its consequences.

B.   Akamai Cannot Prove Infringement of Asserted Claims 1, 2, and 7 of the 088 Patent Because There Is No "Computer System" That Provides "CDN-specific Domain Names" *In Response* To Entry of a Customer Domain Name

Asserted Claim 1 of the 088 Patent (and therefore asserted dependent Claims 2 and 7) recites **"**a computer system that facilitates integration of a content provider site (a) *by receiving*, by the service provider, a domain name associated with a markup language page, the domain name identifying an origin server associated with a content provider, and (b) *in response,*

providing, by the service provider, a CDN-specific domain that points to the domain name service and that is associated with the domain name." **Ex. 18** (088 Patent). Any accused system which lacks this element does not infringe any claim of the 088 Patent. *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.,* 529 F.3d 1364, 1379 (Fed. Cir. 2008) ("accused device must contain 'each limitation of the claim, either literally or by an equivalent.'"). There is no genuine material dispute of fact that could prevent summary judgment of non-infringement of the 088 Patent, because the accused Limelight products lack the claimed "computer system."

The parties did not propose a claim construction for this limitation and as such, agreed that the phrase should be interpreted according to its plain meaning. D.E. 112. That plain meaning is straightforward: function (b) – "*providing*, by the service provider, a CDN-specific domain that points to the domain name service and that is associated with the domain name" (such as "example2.vo.llnwd.net") – is performed by a computer system *"in response"* to, or as the consequence or effect of, the occurrence of function (a) - "*receiving,* by a service provider, a domain name associated with a markup language page" (such as "origin.example.com"). **Ex. 3**, Freedman Resp., ¶¶ 147-152, 182, 183, 187. Akamai itself has previously agreed to this plain meaning, until it learned in discovery that Limelight had no such "computer system." *See, e.g.,* **Ex. 19** (6/17/2016 Akamai & MIT's First Supp. Preliminary Infringement Contentions, Ex. C, at 8). Now, Akamai and Dr. Mir do not even agree that "receiving," and "in response, providing" requires that the receiving and providing steps be performed in order: "*None of this depends on the order* in which the CDN receives the customer's origin domain and provides a CDN-specific domain, as confirmed by the '088 specification." **Ex. 2**, Mir Reply, ¶ 88.

Akamai's belated change of heart is of no consequence. Courts across the country, including the Federal Circuit, have consistently construed **"in response"** to describe a "cause

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and effect" relationship between the two operations it links. *See, e.g., Am. Calcar, Inc. v. Am. Honda Motor Co.,* 651 F.3d 1318, 1340 (Fed. Cir. 2011) ("'In response to' connotes that the ***second event occur in reaction to the first event***."); *Fujitsu Ltd. v. Belkin Int'l, Inc.,* No. 10-CV-03972-LHK, 2012 U.S. Dist. LEXIS 142102, at *88 (N.D. Cal. Sep. 28, 2012) ("in response to" requires a "***specific relationship between the receipt of information and its transfer***, i.e., the information is transferred 'in response to' its receipt."); *In re Elonex Phase II Power Management Litigation*, 2002 U.S. Dist. LEXIS 18724 (D. Del., Oct. 3, 2002) ("as a consequence of"); *Jardin v. Datallegro, Inc.*, 2010 U.S. Dist. LEXIS 105502, *13 (S.D. Cal., Oct. 4, 2010) (plain meaning of "in response to" is "includes a causation requirement"); *Acacia Media Technologies Corp. v. New Destiny Internet Group*, 2007 U.S. Dist. LEXIS 19314, **20-21, FN4 (N.D. Cal., Mar. 2, 2007) ("[A] second event is 'responsive' to a first event if the first event causes the second event to happen."); *Tradecard, Inc. v. S1 Corp.*, 509 F. Supp. 2d 304, 311 (S.D.N.Y. 2007) ("upon or in reaction to"); *Progressive Semiconductor Sols. LLC v. Qualcomm Techs., Inc.*, No. 8:13-cv-01535-ODW(JEMx), 2014 U.S. Dist. LEXIS 124014, *14 (C.D. Cal. Sep. 4, 2014) ("a stimulus and an effect.").

Akamai has identified no Limelight "computer system" that meets this plain meaning by providing a "CDN-specific domain name" ***in response*** to receiving a customer domain name associated with an origin server. Akamai contends that the use, by Limelight engineers, of numerous separate computer systems to configure new Limelight customers for service on Limelight's CDN satisfies the 088 Patent's "computer system" requirement. **Ex. 2**, Mir Reply, ¶¶ 65-81; **Ex. 3**, Freedman Resp., ¶¶ 166-218. In particular, Akamai and its expert Dr. Mir contend that the "***receiving,*** by a service provider, a domain name associated with a markup language page" step of the "computer system" limitation is met by an internal Limelight

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computer system named ███

███ **Ex. 2**,

Mir Reply., ¶ 67 (citing **Ex. 3**, Freedman Resp., ¶¶ 178-191); **Ex. 1**, Mir Opening, ¶¶ 355-356.

It is undisputed ██

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████████████████████ **Ex. 2**, Mir Reply, ¶¶ 67-68. Instead, Akamai and its expert Dr. Mir

contend that the "***in response, providing***, by the service provider, a CDN-specific domain" step

of the "computer system" limitation is met by a ***different*** Limelight computer system: a

"ticketing system" ███

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████ Akamai and Dr. Mir contend that the provision of the CNAME target in the Welcome

Letter meets the "***in response, providing***. . . a CDN-specific domain" step of the claim language.

Ex. 2, Mir Reply ¶¶ 73, 75-78 (citing **Ex. 3**, Freedman Resp., ¶¶ 203-209); **Ex. 1**, Mir Opening,

¶¶ 355-362. The only linkage between these two computer systems is that, ████████████

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████████████████ **Ex. 2**, Mir Reply, ¶ 68 (citing **Ex. 3**, Freedman Resp., ¶ 190).[1]

Akamai cannot show, as a matter of law, that these two operations, performed in two

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[1] In Dr. Mir's opening report, Akamai and Dr. Mir relied upon a Limelight document stamped "DRAFT" and "Not Approved" (**Ex. 20**, LLNW_00223471-610), **Ex. 3**, Freedman Resp., ¶¶ 173-177, to suggest that the various Limelight provisioning systems were integrated together. **Ex. 1**, Mir Opening, ¶ 362. Dr. Mir now appears to concede that such a system does not exist, yet contends that Limelight still meets the "computer system" limitation. **Ex. 2**, Mir Reply, ¶ 63.

different computer systems, meet the "receiving" and "**in response,** providing" elements of the "computer system" limitation. First, it is undisputed that ████████████████████

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██████████████████████ **Ex. 3**, Freedman Resp., ¶ 187 ███████████████

██);

Ex. 4 (Hofmann Vol. 2 Dep. at 606:20-607:21 ████████████████

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██ "). *See generally id.* at 602:21-613:17. As such, RT's sending of a "Welcome Letter," which Akamai and Dr. Mir contend meets the "providing a CDN-specific domain name" element, cannot be **"in response"**

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██ *See, e.g., Am. Calcar,* 651 F.3d at 1340 ("'In response to' connotes that the *second event occur in reaction to the first event.*").

Second, it is undisputed that the customer "domain name identifying an origin server"

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conveyed to the customer in the "Welcome Letter." and which Akamai contends is the "CDN-specific domain name." Instead, the CNAME target, such as example2.vo.llnwd.net, is the result

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████████████████████████████████████ **Ex. 3**, Freedman Resp., ¶¶ 180-186, 193-199; **Ex. 2**,

Mir Reply, ¶¶ 67-71. It is undisputed that ████████████████████████████

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██ This too

demonstrates the absence of any causal (*i.e.,* "responsive") relationship between the receipt of a

"domain name identifying an origin server" on the one hand, and the provision of the "CDN-specific domain" in a Welcome Letter. That "CDN-specific domain" can be created and

delivered whether or not the "domain name identifying an origin server" is even known. **Ex. 3**,

Freedman Resp., ¶¶ 180-186; *see also, id.*, ¶¶ 231-242. As such, the information in the Welcome

Letter does not meet the claim's requirement that it be **"in response"** to receipt of a customer

origin domain in Lux.[2]

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[2] Akamai's second infringement theory, that an "Ordering Delivery Services" feature in a customer portal called "Limelight Control" meets the "computer system" limitation, **Ex. 1**, Mir Opening, ¶¶ 364-366, **Ex. 2**, Mir Reply, ¶¶ 82-86, fails for the same reasons. ██

Akamai and Dr. Mir's contrary contention is equivalent to asserting that, because ███

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████████████████████████████████ As a matter of law, the occurrence of the second

event cannot be shown to be "in response" to the first—and nor can the equally unrelated

provision of a customer origin name. *See, e.g., Am. Calcar,* 651 F.3d at 1340.[3]

C.   **Akamai Cannot Prove Infringement of Claim 58 of the 133 Patent As A Matter of Law**

1.   **The FastTCP "Protocol" Cannot Be a "High Performance Protocol" Because It Is "Supported By The Ultimate Destination"**

The Court construed "high performance protocol" in Claim 58 of the 133 Patent (the only

asserted claim) as "a communication protocol ***not supported by the ultimate source or***

destination that is designed to be of higher performance than a prevailing standard

communication protocol." D.E. 179 at 19. Although Akamai contends that Limelight's use of a

TCP congestion control algorithm called "FastTCP" is a "high performance protocol" under the

Court's construction [D.E. 179 at 19], the undisputed evidence shows that FastTCP ***is*** supported

by the ultimate destination (the end user computer), because Limelight's content servers use

FastTCP to successfully transmit content to such destinations thousands of times a day. As such,

summary judgment of no infringement is warranted.

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[3] In fact, the Welcome Letter's provision of a CNAME target (the purported "CDN-specific domain name") is "responsive to" a ***different*** set of information that can be entered into the Lux computer system. The Lux system presents a "Shortname" field which can be used to enter a desired customer-specific name that will be used as part of a CNAME target, such as "example2". **Ex. 3**, Freedman Resp., ¶¶ 181-188. This Shortname field, to which the provision of a CDN-specific domain name can be more reasonably said to be "in response" to, further demonstrates the insufficiency of Akamai's contention as a matter of law.

The Court's construction properly reflects that the invention disclosed in the 133 Patent relates to using *standard* protocols between a source and an edge server (the "first mile"), and between an edge server and a destination (the "last mile")—and using a different, *high performance* protocol, in the middle segment between edge servers. **Ex. 23**, 133 Patent, Claim 58. As the Court acknowledged during claim construction, the high performance protocol in the middle segment should therefore be different than the standard protocols used on the end segments. **Ex. 17**, Markman Tr. at 252:21-253:5 ("THE COURT: If you say standard in the front and standard in the back and high performance in the middle people will know what that means. That is what I think. Now, I may be just wrong about that. But, I think people, jurors will understand what that means.") The Court clarified in its *Markman* order that the high performance protocol cannot be used on any segment that is not the middle segment. D.E. 179 at 21 (the "construction requires that the high-performance protocol *not be supported* by the end-user or the content provider."). Therefore, under the Court's construction, if a source or destination can receive an Internet message sent using the same "high performance protocol" used in the middle, then that protocol cannot be a "high performance protocol" under the Court's construction, because it *is* supported by the source or destination.

Such is the case with Limelight's use of FastTCP. Limelight's expert, Dr. Freedman, demonstrated that Limelight's CDN uses FastTCP technology both between the edge servers (*i.e.,* in the middle) and from an edge server to the end user (*i.e.,* to the "ultimate destination"), based on test results showing that the end user was able to successfully receive and understand an internet message transmitted from an edge server using FastTCP. **Ex. 3**, Freedman Resp., ¶¶ 356-364; **Ex. 5**, Hofmann Vol. 1 Dep. at 100:8-18, 469:10-471:12.

Akamai's expert Dr. Mir does not dispute the test results showing that the end user

computer was able to receive a message sent using FastTCP, which he contends is a "high performance protocol" under the Court's construction. Instead, Dr. Mir attempts to reargue the claim construction by offering a different reading of the Court's construction of "high performance protocol," opining that the FastTCP technology is such a protocol because it is not "included" or "contained in" the source or destination, or does not reside there. **Ex. 1**, Mir Opening, ¶ 604 ("FastTCP…*is included in the edge servers but not in the end user node*… In addition, it is not *contained in* Limelight's Agile Storage brick servers, which in some arrangements will be the ultimate destination"), **Ex. 2**, Mir Reply, ¶ 146 ("Dr. Freedman does not, and cannot, say that the FastTCP stack *resides on the end user's computer*."), ¶ 149 (same).

Akamai's expert used a construction of "high performance protocol" (*i.e.,* a protocol that is "included" or "contained" or "resides" in the ultimate source or destination) that is different than the Court's construction of this term as a protocol "not *supported by* the ultimate source or destination," and improperly sets a lower bar for infringement. Whether a given technology component is *included in*, or *resides on*, one endpoint of a communication is irrelevant to whether it is supported by that endpoint. The undisputed evidence is that "ultimate destination" systems (end user computers) can successfully receive and interpret high-performance communications from a Limelight edge server using the FastTCP technology, *exactly as they are transmitted from one Limelight server to another in the "middle mile."* That means that the protocol is supported by the source or destination. **Ex. 3**, Freedman Resp., ¶ 356. As such, summary judgment of non-infringement is appropriate here. *See*, *General Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997). (*"*Where the parties do not dispute any relevant facts regarding the accused product…but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to

summary judgment."); **Ex. 24**, *WIAV Solutions LLC v. Motorola, Inc.*, No. 09-cv-00447, D.E. 458 (E.D. Va. August 9, 2010) (an expert cannot "offer evidence or testimony based on claim constructions inconsistent with those issued by the court").

2.   Akamai Cannot Prove Limelight Infringes The 133 Patent Because Limelight's Private Network Is Not A "Communication Protocol"

Summary judgment of non-infringement of Claim 58 of the 133 Patent is also warranted because the undisputed facts in evidence do not establish that Limelight's "private network with intelligent routing" —the other purported "high performance protocol" identified by Akamai's expert, **Ex. 1**, Mir Opening, ¶¶ 587, 591, 607-608—meets the Court's construction. First, Akamai has presented no evidence that Limelight's private physical network with intelligent routing is a "high performance protocol", because its expert has identified neither what he means by "intelligent routing" nor why it is a "communication protocol" —which the Court has construed as "a set of rules for transmission or receipt of information between components in a CDN," D.E. 179 at 18—at all. Instead, Dr. Mir simply asserts that "intelligent routing" exists, and that it is a protocol, without identifying any "rules" whatsoever. **Ex. 3**, Freedman Resp., ¶¶ 367, 371; **Ex. 2**, Mir Reply, ¶¶ 151-153. Second, Akamai has not shown that Limelight's private network and routing system meets the Court's construction of "high performance protocol", because neither Akamai nor its expert have identified any "prevailing standard communication protocol" that Limelight's private network is "designed to be of higher performance" than, in accordance with the Court's claim construction. **Ex. 3**, Freedman Resp., ¶¶ 366, 372; **Ex. 2**, Mir Reply, ¶¶ 151-153. Conclusory expert opinion not supported by analysis is not sufficient to create a genuine issue of material fact. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1278 (Fed. Cir. 2004).

D.   178 Patent Claim 1 (and therefore asserted Claim 2) is indefinite

178 Patent Claim 1 (and therefore asserted dependent Claim 2) is invalid because its claim language presents an insoluble ambiguity that renders it indefinite. The claim first recites "one or more CDN storage sites," suggesting that this system claim could be satisfied by an accused system that featured only one "storage site." **Ex. 25** (178 Patent). But the claim later recites "wherein the one or more CDN storage sites include a first **and second** CDN storage sites", suggesting that the claim could only be satisfied by an accused system that features **two** "storage sites." Claims are indefinite if they "fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S.Ct. 2120, 2124 (2014). Insolubly ambiguous claim terms fail this test, and are indefinite. *Spherix Inc. v. Verizon Servs. Corp.,* No. 1:14-cv-00721-GBL-TCB, 2015 U.S. Dist. LEXIS 107378, at *12 (E.D. Va. July 1, 2015).

Here, one of skill in the art would not know whether the 178 Patent can be infringed by a single CDN storage site, or whether two CDN storage sites are required. *See, e.g., Smartflash LLC v. Apple, Inc.*, 77 F.Supp.3d 535, 560-561 (E.D.Tex. Sept. 24, 2014) (claim indefinite where it was unclear whether "the card" referred back to claim language "the data carrier," or "a card"). Akamai's own experts confirm the indefiniteness of this claim language. Akamai's first expert, Dr. Bhattacharjee, said that a single storage site could infringe, and that the limitation reciting a first **and second** storage site was a "mere[] suggest[ion.]" D.E. 104, ¶114. But Akamai's second expert, Dr. Mir, said that a single storage site would not infringe, and that the second storage site is necessary. **Ex. 6**, Mir Reb, ¶ 439. That Akamai's own experts cannot determine the meaning of the claim between them confirms that the claim "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S.Ct. at 2124 (2014).

  E. **Summary Judgment That Akamai Infringes Claims 6 and 11 of Limelight's 324 Patent Should Be Entered**
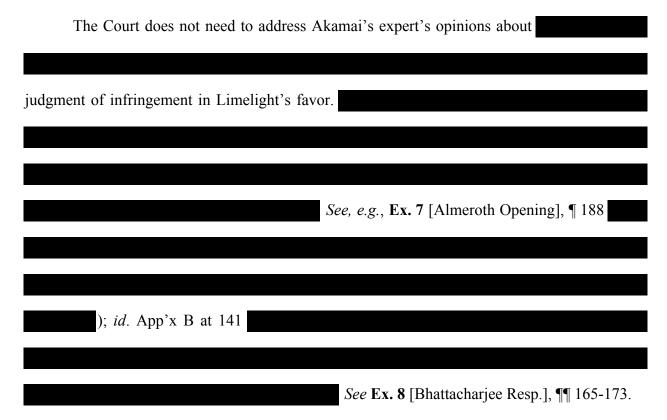
There is no genuine dispute of material fact as to Akamai's infringement of asserted

Claims 6 and 11 of the 324 Patent (**Ex. 26**), which cover a fundamental improvement in how

CDNs like Limelight's and Akamai's deliver content throughout their networks and to end users.

Akamai's own expert has not identified a single claim limitation that he was prepared to opine

Akamai did not meet. "Summary judgment on the issue of infringement is proper 'when no

reasonable jury could find that every limitation recited in a properly construed claim either is or

is not found in the accused device either literally or under the doctrine of equivalents.'" *Fellowes,*

Inc. v. Michilin Prosperity Co., 491 F. Supp. 2d 571, 585 (E.D. Va. 2007) (quoting *PC*

Connector Solutions LLC v. SmartDisk Corp., 406 F.3d 1359, 1364 (Fed. Cir. 2005)).

Here, Limelight has met that standard. Limelight's expert Dr. Almeroth has explained in

detail why Akamai infringes each asserted claim of the 324 Patent. *See* **Ex. 7** [Almeroth

Opening], ¶ 78 (summarizing that "Akamai directly infringes the asserted claims [then including]

5, 6, 8, 10, and 11 of the 324 Patent."); *id.*, ¶¶ 177-210.; *id.*, Appx B at 84-198 (Claim 6), 201-

203 (Claim 11). In response, Akamai's expert does not actually opine that Akamai does not

infringe any of these claims. Instead, he quarrels with Dr. Almeroth about *one* way one specific

claim limitation could be met without disputing that it is met in other ways. *See* **Ex. 8**

[Bhattacharjee Resp.], ¶ 165 ███████████████████████████████

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████████████████████████████████); *see also, id.*, ¶¶ 166-173.

Akamai's expert also asserted as to multiple limitations of Claim 6 and the dependent limitation

of Claim 11 that: "To the extent that Limelight contends that the Akamai Prior Art System does

not teach this limitation, the limitation does not read on the accused Akamai system for the same

or similar reasons." **Ex. 8** [Bhattacharjee Resp.], ¶¶ 152-161, 164. *See also, id.,* ¶ 142 ("to the

extent that Limelight alleges that the accused Akamai system infringes asserted claims . . . they are invalid over prior art, including Akamai's Prior Art System."). Neither of these opinions can defeat summary judgment of infringement.

The Court does not need to address Akamai's expert's opinions about ███████████ ██ judgment of infringement in Limelight's favor. ██████████████████████ ██ ██ ██████████████████████████████████ *See, e.g.,* **Ex. 7** [Almeroth Opening], ¶ 188 ████ ██ ██ ██████████); *id.* App'x B at 141 █████████████████████████████████ ██ ████████████████████████████████ *See* **Ex. 8** [Bhattacharjee Resp.], ¶¶ 165-173.

Akamai's expert's opinions that any distinction over the purported prior use would also show non-infringement are insufficient to avoid summary judgment of infringement for two reasons. First, Akamai's expert's claims are directly contradicted by its documents and the binding testimony of Akamai's corporate witness. The Court construed the term "protocol attribute selector," a requirement of each asserted claim, as "a software process that can analyze each request to select protocol attributes to be used to deliver requested content." D.E. 179 at 2. Akamai's documentation shows that long after the critical date for the 324 Patent, Akamai's system lacked the ability to analyze each request as required by the Court's construction. **Ex. 27** [AKAM0543568-571] at 568-569 ██████████████████████████████████

██ Akamai's corporate

witness confirmed ██

██████████ **Ex. 28** [Knox Dep.] at 177:1-19. Akamai cannot now claim to have had a "protocol

attribute selector" during the prior use period for the 324 Patent.

More fundamentally, Akamai's argument is legally irrelevant. As the Federal Circuit has

explained, "literal infringement is determined by construing the claims and comparing them to

the accused device, ***not by comparing the accused device to the prior art.***" *Tate Access Floors v.*

Interface Architectural Res., 279 F.3d 1357, 1366 (Fed. Cir. 2002). Akamai cannot raise a

genuine dispute of material fact that it does not meet each limitation of Claims 6 and 11. The

Court should grant summary judgment of infringement of Claims 6 and 11 of the 324 Patent.

      F.   **Limelight's 577 Patent Is Not Anticipated or Obvious Because Akamai's**
               Untimely Disclosure of Prior Art Should Be Excluded

          1.   **Akamai's Untimely Disclosure of Prior Art, and the Opinions of Its**
                     Expert Regarding Them, Should Be Excluded

The report of Akamai's expert Dr. Bhattacharjee presents 378 paragraphs of opinions that

the 577 Patent is anticipated or rendered obvious by purported prior art. None of that prior art

was specifically asserted against the 577 Patent in Akamai's invalidity contentions as required by

this Court's scheduling order. Instead, Akamai waited over two weeks after the close of fact

discovery, two-and-a-half months after the Court-ordered contentions were due, ***and just three***

days before service of Dr. Bhattacharjee's Opening expert report, to disclose the prior art case

that it actually intended to rely upon. Limelight moves to strike these opinions and the untimely

disclosed prior art. Without those, Akamai cannot offer clear and convincing evidence that the

577 Patent is invalid.

Violations of the Court's scheduling orders are sanctionable under Fed. R. Civ. P. 16(f)(1)(C), including exclusionary sanctions. Fed. R. Civ. P. 16(f)(1)(C). "In analyzing whether exclusion is an appropriate remedy, the Court should consider the following factors:

> (1) the surprise to the party against whom the evidence would be offered; (2) the ability of that party to cure the surprise; (3) the extent to which allowing the evidence would disrupt the trial; (4) the importance of the evidence; and (5) the non-disclosing party's explanation for its failure to disclose the evidence."

East West, LLC v. Rahman, No. 1:11cv1380 (JCC/TCB), 2012 U.S. Dist. LEXIS 133381, at **16-17 (E.D.Va. Sept. 17, 2012) (citing *Luma Corp. v. Stryker*, 226 F.R.D. 536, 541-43 (S.D. W.Va. 2005)). Each "*Luma* factor" supports exclusion.

First, Limelight was indisputably surprised by Akamai's untimely disclosures, served the evening of Tuesday, September 20, 2016 (**Ex. 11**), *less than 72 hours prior* to Akamai's service of Dr. Bhattacharjee's Opening Report. Limelight had prepared (and timely served Akamai with) responsive contentions to Akamai's McCausland and Ooi NOSSDAV Paper references, and justifiably relied on that work in preparation for drafting responses to the opinions of Dr. Bhattacharjee in his Opening Report. Second, this surprise cannot be cured because Akamai's untimely disclosures prejudice Limelight given that discovery is now closed, trial is imminent, and it would require weeks of additional discovery in order to sufficiently investigate Akamai's untimely disclosed contentions, and several weeks after receiving adequate responses from Akamai in order to research and fully develop responsive contentions. Third, allowing Akamai to proceed with these untimely references would significantly disrupt trial. In order for Limelight to conduct the required discovery to fully investigate the facts and develop responsive contentions, this Court would need to continue the scheduled trial date of January 3, 2017. Fourth, while Akamai may consider its untimely disclosed prior art important, its purported importance is belied by Akamai's inexcusable delay in disclosing it to Limelight. Finally, Akamai has not

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provided an explanation to Limelight for the untimeliness of its invalidity contentions, ***which***

principally concern one of Akamai's own products, and therefore could have been disclosed

much sooner. However, the fact that Akamai had prepared 378 paragraphs of expert opinion on

these references by September 23, 2016 (**Ex. 13**), but did not disclose them until less than 72

hours earlier, suggests strongly that Akamai had no legitimate basis for delaying its disclosure.

As a consequence, each of the *Luma* factors supports excluding Akamai's untimely contentions,

and the opinions of Akamai's expert Dr. Bhattacharjee concerning them.[4]

> **2.   Without Dr. Bhattacharjee's Opinions, Akamai Lacks Evidence to Defeat Summary Judgment that the 577 Patent is Not Invalid**

To avoid summary judgment of no invalidity, "an accused infringer must point to

sufficient evidence for a reasonable jury to conclude by clear and convincing evidence that the

asserted claims are anticipated." *Viva Healthcare Packaging USA Inc. v. CTL Packaging USA*

Inc., No. 3:13-cv-00569-MOC-DSC, 2016 U.S. Dist. LEXIS 90130, at *67-68 (W.D.N.C. July

11, 2016) (internal citations omitted). Such evidence "must generally consist of expert testimony

which explains in detail how each claim element is disclosed in the prior art reference." *Id.*

Once Akamai's untimely contentions and Dr. Bhattacharjee's related opinions are

excluded, Akamai can present no genuine issue of material fact to avoid summary judgment.[5]

Absent expert testimony which "explain[s] in detail how each claim element is disclosed in the

prior art reference," *Schumer v. Lab. Comput. Sys.*, 308 F.3d 1304, 1315-16 (Fed. Cir. 2002),

summary judgment of no invalidity of the 577 Patent should be granted.

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[4] Rule 37(b) and 37(c)(1) also support striking Akamai's untimely prior art references and expert opinions. *Contech Stormwater Solutions, Inc. v. Baysaver Techs., Inc.*, 534 F. Supp. 2d 616, 622 (D. Md. 2008), *affirmed* 310 Fed. Appx 404 (Fed. Cir. 2009) ("Rule 37(c)(1) could prevent a non-moving party" from offering evidence "when that party has previously failed to meet its disclosure and duty to supplement requirements."). *See also, Swimways Corp. v. Zuru, Inc.*, Civ. No. 2:13-cv-334, 2014 U.S. Dist. LEXIS 101663, at *11 (E.D. Va. July 10, 2014).

[5] Because Akamai has presented no expert opinion regarding its originally disclosed McCausland and Ooi NOSSDAV Paper prior art references, Akamai may not rely on these references.

Date: November 14, 2016   Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 14th day of November, 2016, a true copy of the foregoing will be electronically filed with the Clerk of Court using the CM/ECF system, which will then send a notification of such filing (NEF).

/s/   Natasha M. Saputo
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